

SEQUENCE LISTING

<110> MERKULOV, Gennady et al.

<120> ISOLATED HUMAN TRANSPORTER PROTEINS,
NUCLEIC ACID MOLECULES ENCODING HUMAN TRANSPORTER PROTEINS,
AND USES THEREOF

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<151> 2003-11-03

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<141> 2001-02-07

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<212> DNA

<213> Homo sapiens

<400> 43

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<211> 601

<212> DNA

<213> Homo sapiens

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<211> 601

<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

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<212> DNA
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<210> 49

<211> 601

<212> DNA

<213> Homo sapiens

<400> 49

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<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

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<213> Homo sapiens

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cctccccggt cttgtagtcc ccagtttctg cttttcccat ctttatatcc gtgtgcaccc 480
catgttttgc tcccatgtgt atgtgagaac ttgtggtgtt tggttttcta tttctgcgtt 540
gattcgctta ggataatggc cttcagctgc atccatgttg ctgcagagga cgtgatttta 600
t                                                                                     601

```

<210> 64

<211> 601

<212> DNA

<213> Homo sapiens

<400> 64

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aggagtttat caattttatt agtcttttca aagaaccatc ttttggcttt gttaatcctc 60
cfaatgggtg gttttctttc tcattacttt ttgctcttta tttccttcaa cttctttttt 120
gcttaatttt aaaataattt cttgagattg agataagcct caatgatggg tcaccgattt 180
ccagtctttc tttcttttcta attatgcatt ttaaaccaga aatctttctc taagtgtagc 240
tttagttgca gtcacaaagt ttcagatctg tctctcagtc tggagggttg agatctgacc 300
rtgaccatga aaccatccag tcacaatgtg gcattatttt ttttaatttt tttttttttt 360
ttgagataga gtttcaactc tattgcctag gctgggtgtc aatgggtgcga tctcggtcga 420
cagcaacctc caccctccag gttcaagcga ttcttttgcc tcagcctccc aagtagctgg 480
gattacaggc atgcgccacc atgcccactt aattttgtat ttttagtaga gatggggggt 540
ctccatgttg gtcagggttg tcttgaactc ccgacctcag gtgatccgcc cacctcagcc 600
t                                                                                     601

```

<210> 65

<211> 601

<212> DNA

<213> Homo sapiens

<400> 65

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gtggcattat tggttcatat ttttattttt tagacttcct taatgcaaaa catatacagt 60
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ccaaagtaac cccaaaatat atactcacag tactttccca ggcattcatg gacatgcaca 180
gagcagtga aaacttgagt tgctcagcat gtacattcct agctagtaga ataaggcaat 240
actctgcctt cttgtttcag ctctcatact attaactagc aagtatccct ttcaaggctc 300
rttttgtgcc agtttttgca tttttgtatt tttgttggtt atttctttt taaaatgttc 360
cccaaaggta gtgctgaagt gctgtctagt gtctctaagt gcaagaaagc catagcatgc 420
cttatggaga aaatatatgc gttggataag ctttgcccca aattcaatgt tagtgaatca 480
acagcacaca ttaaatgagg tgccttcaaa cagaaacaga cataagacat ggttatgtat 540
taatcagttg atgaaagtgt tgtaatcaga ggctcacagg aacctaacc tgtttttcct 600
g                                                                                     601

```

<210> 66

<211> 601

<212> DNA

<213> Homo sapiens

```

<400> 66
ctcacagtac tttcccaggc attcatggac atgcacagag cagtgaaaaa cttgagttgc 60
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tcatactatt aactagcaag tatccctttc aaggtctatt ttgtgccagt ttttgcat 180
ttgtattttt gttggtaatt tcctttttta aatgttcccc aaaggtagtg ctgaagtgc 240
gtctagtgtt cctaagtgca agaaagccat agcatgcctt atggagaaaa tatatgcgtt 300
kgataagctt tgccccaat tcaatgtagt tgaatcaaca gcacacatta aatgaggtgc 360
cttcaaacag aaacagacat aagacatggt tatgtattaa tcagttgatg aaagtgttgt 420
aatcagaggc tcacaggaac ctaaccctgt ttttcctgta ggaacaatgg tttggtattt 480
gctaattcag tgtttgcaat gaatatagaa ctttatggaa gatgattgct gtgaataatg 540
agaattaacc atatctcttt aagagtgcac ttctaaagga gaatattcag aagggtattt 600
g 601

```

```

<210> 67
<211> 601
<212> DNA
<213> Homo sapiens

```

```

<400> 67
tcagcatgta cattcctagc tagtagaata aggcaatact ctgccttctt gtttcagctc 60
tcatactatt aactagcaag tatccctttc aaggtctatt ttgtgccagt ttttgcat 120
ttgtattttt gttggtaatt tcctttttta aatgttcccc aaaggtagtg ctgaagtgc 180
gtctagtgtt cctaagtgca agaaagccat agcatgcctt atggagaaaa tatatgcgtt 240
ggataagctt tgccccaat tcaatgtagt tgaatcaaca gcacacatta aatgaggtgc 300
sttcaaacag aaacagacat aagacatggt tatgtattaa tcagttgatg aaagtgttgt 360
aatcagaggc tcacaggaac ctaaccctgt ttttcctgta ggaacaatgg tttggtattt 420
gctaattcag tgtttgcaat gaatatagaa ctttatggaa gatgattgct gtgaataatg 480
agaattaacc atatctcttt aagagtgcac ttctaaagga gaatattcag aagggtattt 540
gcataatttc ttactaaca gatgctgcct ctcactgtcc ttacatggtc cagattctca 600
t 601

```

```

<210> 68
<211> 601
<212> DNA
<213> Homo sapiens

```

```

<400> 68
tctctcagaa tcctgtcacc tcctccaggg tcctttctcc aagaaagtct atcctttcac 60
cactaacagt aattttggtc tcctctttt tctggagaag tcagctgttt atgctgcttc 120
agcaccagac cctctcttac tttgttttgt ttcattcttt ttcattgtaca gtagctcttag 180
gattctcatg agcctgtgag ctgctagaag gaaatacagc agtgcttaca tttattgctt 240
ctattttatt ttctattttc tcttctgtc ttctgattgt tctccttctg tccacaaaca 300
ygctctaatt tcctagtagt taaaaatttt ctgtcttttg ttgttctttt atccttgctc 360
ccttattttt actgccagat ttttattttt atttatttat ttttgagatg gagtctcact 420
ctgtcaccca ggctgggggt cagtggcgcg atctcagctc actgcaacct ccgctccca 480
gcttcaagca attttctctt tttagcctcc caagtagctg ggattatggg cacctgccac 540
catgcctggc tgatttttct attttttagta gagacggggg ttcacatgt tggccacact 600
g 601

```

```

<210> 69
<211> 601
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> variation
<222> (301)...(301)
<223> T may be either present or absent

```

```

<400> 69
cactctgtca cccaggctgg ggtgcagtgg cgcgatctca gctcactgca acctccgcct 60
cccagcttca agcaattttc ctcttttagc ctcccaagta gctgggatta tgggcacctg 120

```

```

ccaccatgcc tggctgattt ttctatTTTT agtagagacg gggtttcacc atgttggcca 180
cactgctctc taactgctga cctcaggtga accaccgcc tcagcctcca aaagtgctgg 240
gtgtgcaggt gtgagtcact gtgcctggcc ttttactgcc agatttttaa aagaatagtc 300
tgtgcttttag ctctatTTTcc tcatttacta cttctcttta actcagtcac atatgatgtt 360
ttgcatagta aatgtctagt aattttattaa aaatgtagaa ataggtactt ttaaaatgaa 420
tagatcctac ttttaattgaa tttatcttgg agttagaata tcttgatttg gatttttagtt 480
ctgctacttc ttaattacat tacttggttaa ggccacttgt gaagtcagtc tctttggagg 540
aatattatTT atctataagg ctgttacaat tactgaattt taaaaaatgt gtatttattt 600
t

```

601

<210> 70

<211> 601

<212> DNA

<213> Homo sapiens

<400> 70

```

tagtaattta ttaaaaatgt agaaataggt acttttaaaa tgaatagatc ctactttaat 60
tgaattttatc ttggagtttag aatatcttga tttggatttt agttctgcta cttcttaatt 120
acattacttg gtaaggccac ttgtgaagtc agtctctttg gaggaatatt atttatctat 180
aaggctgtta caattactga attttaaaaa atgtgtattt attttttaat gtatttgtaa 240
catttttagt attgatgttg ggataggcat ttaagcaagt ctataactca cctacatgca 300
yaattttgccc ttaatcagtt taaagctttc tcttaaatga gagatttgaa attcataatt 360
tctgtggttc ttaacagttc tgagttttat tttttgccc ttttattttt ttaaaggaaa 420
aattgaggct tcagaaattg tccagtcctc ccagacactg ggtctgacta tttctgaaca 480
acaagcagag ttgattcttc aaaggtaagc tcttcattgt ggtcaacaat tgactttcac 540
tttaatatcc tgcattagaa ctctgtgttt gtaagtgtgg cttttaaaca cctccctagt 600
c

```

601

<210> 71

<211> 601

<212> DNA

<213> Homo sapiens

<400> 71

```

gagttagaat atcttgattt ggatttttagt tctgctactt cttaattaca ttacttggtta 60
aggccacttg tgaagtcagt ctctttggag gaattattat tatctataag gctgttaca 120
ttactgaatt ttaaaaaatg tgtatttatt ttttaattga tttgttacct ttttagtatt 180
gatgttggga taggcattta agcaagtcta taactcacct acatgcataa ttttgcctta 240
atcagttttaa agctttctct taaatgagag atttgaaatt cataatttct gtggttctta 300
ycagttctga gttttatttt ttgccccttt tattttttta aaggaaaaat tgaggcttca 360
gaaattgtcc agtctctcca gacactgggt ctgactattt ctgaacaaca agcagagttg 420
attcttcaaa ggtaagctct tcatgttggt caacaattga ctttcacttt aatatcctgc 480
attagaactc tgtgtttgta agtgtggctt taaaacacct ccctagtctt cattatgtat 540
atccaagatc tttttgtcct ttttcctccc attcattttg tatgtgtaca tttatctaaa 600
g

```

601

<210> 72

<211> 601

<212> DNA

<213> Homo sapiens

<400> 72

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gtattgatgt tgggataggc atttaagcaa gtctataact cacctacatg cataattttg 60
ccttaatcag tttaaagctt tctcttaaat gagagatttg aaattcataa tttctgtggt 120
tcttatcagt tctgagtttt attttttgcc ctttttattt ttttaaagga aaaattgagg 180
cttcagaaat tgtccagtcct ctccagacac tgggtctgac tatttctgaa caacaagcag 240
agttgattct tcaaaggtaa gctcttctatg ttggtcaaca attgacttct actttaatat 300
yctgcattag aactctgtgt ttgtaagtgt ggctttaaaa cacctcccta gtcttcatta 360
tgtatatcca agatcttttt gtcttttttc ctcccattca ttttgatgt gtacatttat 420
ctaaagtgta agaattggaa gtgtaagctc agactggact ctttctttca aggcctcaaa 480
ggatagtgga atggcaggaa gtaaggtttt aactccatag atgaggagct gaagagtttt 540
ggtgttgctt tttctccatt tgatttctaa tgtgacagta aaactcattg attcaaacta 600
a

```

601

<210> 73
 <211> 601
 <212> DNA
 <213> Homo sapiens

<400> 73
 cattgattca aactaagaag actagcagat tcatcacatt atttaaccta gatgtgactg 60
 gaaaaaaggg aaattactaa gctctccaag ctaacaaaga aatacctgtt taaactttca 120
 gaaaacagaa atgcaaattt gaaccttatt gtctggggca atcagtttga ctattttaagt 180
 cagactttta tactcttaat gttttgtttc atgggataga gcagtaatct ctgcagccca 240
 ggtgctctca aatactctgt tgctataaac acagggcagg aactgatttt ttatgataac 300
 rtaaaacaga aaaggacaat tatattgtat taatattgtt gtgaatattt tcagtcctca 360
 cattgtctaa aaatctttct aaatggcttt gttattgaat ttatctcatt ttatatctgt 420
 gccaacagca ttttcatcct ttctcttcat aatttctttt acaaacagct gctcaagagg 480
 aaggctcaaa gtctcaaggc tgagcacgta atgacttttg ttagtactag atgagaaggg 540
 ctttctgtgag gaaatgaaaa cctaaaacat gaaaagaaga taaacagaat ttggacagtg 600
 a 601

<210> 74
 <211> 601
 <212> DNA
 <213> Homo sapiens

<220>
 <221> variation
 <222> (301)...(301)
 <223> 'A' may be either present or absent

<400> 74
 aaactaagaa gactagcaga ttcacacat tatttaacct agatgtgact ggaaaaaagg 60
 gaaattacta agctctccaa gctaacaaag aaatacctgt ttaaaccttc agaaaacaga 120
 aatgcaaatt tgaaccttat tgtctggggc aatcagtttg actattttaag tcagactttt 180
 atactcttaa tgttttgttt catgggatag agcagtaatc tctgcagccc aggtgctctc 240
 aaatactctg ttgctataaa cacagggcag gaactgattt tttatgataa cgtaaaacag 300
 aaaaggacaa ttatattgta ttaattattgt tgtgaatatt ttcagtcctc acattgtcta 360
 aaaatctttc taaatggctt tgttattgaa tttatctcat tttatatctg tgccaacagc 420
 attttcatcc tttctcttca taatttcttt tacaacacgc tgctcaagag gaaggctcaa 480
 agtctcaagg ctgagcacgt aatgactttt gttagtacta gatgagaagg gcttttctga 540
 ggaaatgaaa acctaaaaca tgaaaagaag ataaacagaa tttggacagt gagatataga 600
 g 601

<210> 75
 <211> 601
 <212> DNA
 <213> Homo sapiens

<400> 75
 cagaaatgca aatttgaacc ttattgtctg gggcaatcag tttgactatt taagtcagac 60
 ttttatactc ttaatgtttt gtttcatggg atagagcagt aatctctgca gccaggtgc 120
 tctcaaatat tctgttgcta taaacacagg gcaggaactg attttttatg ataacgtaaa 180
 acagaaaagg acaattatat tgtattaata ttgttgtaga ttttttcagt cctcacattg 240
 tctaaaaatc tttctaaatg gctttgttat tgaatttatc tcattttata tctgtgccaa 300
 yagcattttc atcctttctc ttcataatth cttttacaaa cagctgctca agaggaaggc 360
 tcaaagtctc aaggctgagc acgtaatgac ttttgtagt actagatgag aagggctttc 420
 ctgaggaaat gaaaacctaa aacatgaaaa gaagataaac agaatttgga cagtgaata 480
 tagagcatat aatattctgc ttctaaaagt atattcttct aggaaagtga gggcgtttcc 540
 ctggctgtta ggccagaaat catattccta tattttcttt gatagcttta ggaataatgc 600
 a 601

<210> 76
 <211> 601
 <212> DNA

<213> Homo sapiens

<220>

<221> variation

<222> (301)...(301)

<223> T may be either present or absent

<400> 76

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tgaaccttat tgtctggggc aatcagtttg actattttaag tcagactttt atactcttaa 60
tgttttgttt catgggatag agcagtaatc tctgcagccc aggtgctctc aaatactctg 120
ttgctataaa cacagggcag gaactgattt tttatgataa cgtaaaacag aaaaggacaa 180
ttatattgta ttaatatgtt tgtgaatatt ttcagtcctc acattgtcta aaaatctttc 240
taaattggctt tgttattgaa tttatctcat tttatatctg tgccaacagc attttcatcc 300
tttctcttca taatttcttt taaaaacagc tgctcaagag gaaggctcaa agtctcaagg 360
ctgagcacgt aatgactttt gttagtacta gatgagaagg gctttcctga ggaaatgaaa 420
acctaaaaca tgaaaagaag ataaacagaa tttggacagt gagatataga gcatataata 480
ttctgcttct aaagtaatat tcttctagga aagtgaaggc gttccctgg ctgttaggcc 540
agaaatcata ttcctatatt ttctttgata gctttaggaa taatgcaaatt tctaagccca 600
a 601
```

<210> 77

<211> 601

<212> DNA

<213> Homo sapiens

<220>

<221> variation

<222> (301)...(301)

<223> C, T, or neither (single base deletion) may be present.

<400> 77

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gaaccttatt gtctggggca atcagtttga ctattttaagt cagactttta tactcttaat 60
gttttgtttc atgggataga gcagtaatct ctgcagccca ggtgctctca aatactctgt 120
tgctataaac acagggcagg aactgatttt ttatgataac gtaaaacaga aaaggacaat 180
tatattgtat taatatgtt gtgaatattt tcagtcctca cattgtctaa aaatctttct 240
aaatggcttt gttattgaat ttatctcatt ttatatctgt gccaacagca ttttcatcct 300
ytctcttcat aatttctttt aaaaacagct gctcaagagg aaggctcaaa gtctcaaggc 360
tgagcacgta atgacttttg ttagtactag atgagaaggg ctttctctgag gaaatgaaaa 420
cctaaaacat gaaaagaaga taaacagaat ttggacagt agatatagag catataatat 480
tctgcttcta aagtaatat cttctaggaa agtgagggcg tttccctggc tgtaggccca 540
gaaatcatat tcctatattt tctttgatag ctttaggaat aatgcaaatt ctaagcccaa 600
g 601
```

<210> 78

<211> 601

<212> DNA

<213> Homo sapiens

<220>

<221> variation

<222> (301)...(301)

<223> C may be either present or absent

<400> 78

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accttattgt ctggggcaat cagtttgact atttaagtca gacttttata ctcttaattg 60
tttgtttcat ggggatagag agtaatctct gcagccagg tgctctcaaa tactctgttg 120
ctataaacac agggcaggaa ctgatttttt atgataacgt aaaacagaaa aggacaatta 180
tattgtatta atattgttgt gaatattttc agtcctcaca ttgtctaaaa atctttctaa 240
atggctttgt tattgaattt atctcatttt atatctgtgc caacagcatt ttcattcttt 300
ctcttcataa tttcttttac aaacagctgc tcaagaggaa ggctcaaaagt ctcaaggctg 360
agcacgtaat gacttttggt agtactagat gagaagggct ttcctgagga aatgaaaacc 420
taaaacatga aaagaagata aacagaattt ggacagttag atatagagca tataatatcc 480
```

tgcttctaaa gtaatattct tctaggaaa tgagggcggt tccctggctg ttaggccaga 540
aatcatattc ctatattttc tttgatagct ttaggaataa tgcaaattct aagcccaagc 600
t 601

<210> 79

<211> 601

<212> DNA

<213> Homo sapiens

<400> 79

atattttcag tcctcacatt gtctaaaaat ctttctaaat ggctttgtta ttgaatttat 60
ctatttttat atctgtgccacacagcatttt catcctttct cttcataatt tcttttacia 120
acagctgctc aagaggaagg ctcaaagtct caaggctgag cacgtaatga cttttgttag 180
tactagatga gaagggcttt cctgaggaaa tgaaaaccta aaacatgaaa agaagataaa 240
cagaatttgg acagtggagat atagagcata taatattctg cttctaaagt aatattcttc 300
haggaaaagt agggcggtttc cctggctggt aggccagaaa tcatattcct atattttctt 360
tgatagcttt aggaataatg caaattctaa gcccaagctt cagaatagac taagaagtat 420
tagcttagct gccatgacaa aataccatag gctggatgca ttaaacaatg gaaatttagt 480
ttttcacagg tctgggagct gggaagttaa agatgagagt gccagcatgg ttgggttgta 540
gtgagggctc tctttctggc ttgcagatag accccttctc actgtattgt catatggcag 600
a 601

<210> 80

<211> 601

<212> DNA

<213> Homo sapiens

<400> 80

cattgtctaa aaatctttct aaatggcttt gttattgaat ttatctcatt ttatatctgt 60
gccaacagca ttttcatcct ttctcttcat aatttctttt acaaacagct gctcaagagg 120
aaggctcaaa gtctcaaggc tgagcacgta atgacttttg ttagtactag atgagaagg 180
ctttcctgag gaaatgaaaa cctaaaacat gaaaagaaga taaacagaat ttggacagt 240
agatatagag catataatat tctgcttcta aagtaatat cttctaggaa agtgagggcg 300
kttccctggc tgtagggcca gaaatcatat tcttatattt tctttgatag ctttaggaat 360
aatgcaaatt ctaagcccaa gcttcagaat agactaagaa gtattagctt agctgccatg 420
acaaaatacc ataggctgga tgcattaaac aatggaaatt tagtttttca caggctctggg 480
agctgggaag tttaagatga gagtgccagc atgggtgggt tgtagtgagg gctctctttc 540
tggtctgcag atagaccctt tctcactgta ttgtcatatg gcagagagag agagagagag 600
a 601

<210> 81

<211> 601

<212> DNA

<213> Homo sapiens

<220>

<221> variation

<222> (301)...(301)

<223> A, G, or neither (single base deletion) may be present

<400> 81

gaaagtgagg gcgtttccct ggctgttagg ccagaaatca tattcctata ttttctttga 60
tagcttttagg aataatgcaa attctaagcc caagcttcag aatagactaa gaagtattag 120
cttagctgcc atgacaaaat accataggct ggatgcatta aacaatggaa atttagtttt 180
tcacaggtct gggagctggg aagtttaaga tgagagtgcc agcatggttg ggttgtagtg 240
agggctctct ttctggcttg cagatagacc ccttctcact gtattgtcat atggcagaga 300
ragagagaga gagagagaga gagagagaga ggggatcttt ctcttgcttt ctattataag 360
gccatagtcc tggtggatca gggttccatt cttatgactt tatttgactt taccctcccta 420
agatgctatc tccagatata atcacacggt ggggttagggc ctcaacattt ggatttgagg 480
gggacacagc tcagtccata gcaaaggata atgcagaggg ttggatattt aaaagtagct 540
acacaatttt taatataaat attttatggt aacttttttt tttttttgag atggagtcta 600
g 601

<210> 82
 <211> 601
 <212> DNA
 <213> Homo sapiens

<400> 82-
 atctttctct tgctttctat tataaggcca tagtcctggt ggatcagggt tccattctta 60
 tgactttatt tgactttacc cccctaagat gctatctcca gatataatca cacggtgggt 120
 tagggcctca acatttgat ttgggaggga cacagctcag tccatagcaa aggataatgc 180
 agagggttgg atatttaaaa gtagctacac aatttttaat ataaatattt tatggtaact 240
 tttttttttt tttgagatgg agtctagctc tgttgcccag gctggagcgc aatgggtagc 300
 dctcagctca ctgcaacctc cgctcccag gttcaagcaa ttctctgcc tcagcctcct 360
 gagtagttgg gactataggc acgcgccacc acgcctggct atttttttt tatttttact 420
 agagacgggt ttgcaccata ttggtcaggc ttgtctcgaa ctctgacat cagggtgatcc 480
 acccatcttg gcctcccaaa gtgctgggat tacagaagtg agccaccgcg cctagccagc 540
 agctttactg agatgtaatt cacatgccat aaattcactt ttctaaagta tacaattcag 600
 t 601

<210> 83
 <211> 601
 <212> DNA
 <213> Homo sapiens

<220>
 <221> variation
 <222> (301)...(301)
 <223> T may be either present or absent

<400> 83
 atataatcac acggtggggt agggcctcaa catttggtt tgggagggac acagctcagt 60
 ccatagcaaa ggataatgca gaggggttga tattttaaag tagctacaca atttttaata 120
 taaatatttt atggtaactt tttttttttt ttgagatgga gtctagctct gttgcccagg 180
 ctggagcgca atgggtgcat ctacagctcac tgcaacctcc gcctcccagg ttcaagcaat 240
 tctctgcct cagcctcctg agtagttggg actataggca cgcgccacca cgcctggcta 300
 tttttttttt atttttacta gagacggggt tgcaccatat tggtcaggct tgtctcgaa 360
 tcttgacatc aggtgatcca cccatcttgg cctcccaaag tgctgggatt acagaagtga 420
 gccaccgcgc ctageccagca gctttactga gatgtaattc acatgccata aattcacttt 480
 ttctaaagtat acaattcagt gacttaaaac atttatttat ttttaaattg acagaattac 540
 atgtatttat catgtacaac atgatgtttt gaagtatatg tacattgtgg agtgactaag 600
 t 601

<210> 84
 <211> 601
 <212> DNA
 <213> Homo sapiens

<400> 84
 ttctcttagt atttttcaag aatataatat attattatta attgtagtct tcatgttgta 60
 tagtggagct cttgaactta ttccctcatg caagctgaaa ttgtgtgtcc tttaacacaa 120
 accatacccg actcccaaag tattctgctc tctgcttcta tgagattaac tttttctgat 180
 tccacatgag tgagatcatg cagtatttat ttgtctttac ctggcttatt tcattcatat 240
 tgttacagat aacaggattt ccttcttttt ttaatggcgg aatagttttc tattgtatat 300
 rtatagcaca ttttctctct tcatgcattg gtggacactt aggttgattc cgtatcttgg 360
 ctatcgtgaa tagtgctata atgaacatgg gaatgcacat ggctctttga catattgatt 420
 tcattttata tatgtgtata tatatatgta tacacacaca tacatacagt ggtgggattg 480
 caggatcata tggtagttct atatttaatt tttaaaggaa ctccatactg ctttcataa 540
 tggctgtatt agtttaactc ctaccaaca ggggtgcaaaa gttccctttt ctctacatac 600
 t 601

<210> 85
 <211> 601
 <212> DNA

<213> Homo sapiens

<400> 85

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gtctattgct gaaggtaggg tgttgaagtc ccctactatt gctgtattgc agtctctctc 120
tcctttcaga cgtattaatg gtttttattt tattttattt gttgttgttg ttgttgttgt 180
tgttgttttt gagacggagt ctcactctgt caccaggctg gagtgcagtg gcagggtctc 240
ggctcactgc agcccccgtc tcacggttca agcgattctc ctgcctcagc ctcccagtc 300
rctgggacta caggcgcatg ccaccacgcc cagctaattt ttgtattttt agtaaagacg 360
gggtttcacc atgttggcca ggatggctct gatctcttga cttcatgatc caccgcctt 420
ggcctcccaa agtgcaggga ttacagggtg gagccaccac ccctggccaa tgtttggtat 480
ttatcttttag gtgctctgat gttgggttca tatatattta taaaaacaa tagctacata 540
acttattaag ggatatgcaa tataaaatat ataaattgtg acactgaaaa tttaaaatgg 600
g 601
```

<210> 86

<211> 601

<212> DNA

<213> Homo sapiens

<400> 86

```
tctgatgttt cttactgatt ttctgttgag atgatttgtc tattgctgaa ggtagggtgt 60
tgaagtcccc tactattgct gtattgcagt ctctctctcc ttccagacgt attaatgggt 120
tttattttat tttatttgggt gttgttgggt ttgttgttgt tgtttttgag acggagtctc 180
actctgtcac caggctggag tgcagtggca gggctctggc tcaactgcagc ccccgctctca 240
cggttcaage gattctctct cctcagcctc ccgagtcgct gggactacag gcgcagtcca 300
ycacgcccag ctaatttttg tatttttagt aaagacgggg ttccaccatg ttggccagga 360
tgggtcttgat ctcttgacct catgatccac ccgccttggc ctcccaaagt gctgggatta 420
cagggtgtgag ccaccacccc tggccaatgt ttgggtattta tctttagggtg ctctgatgtt 480
gggttcatat atattttataa aaaacaatag ctacataact tattaaggga tatgcaatat 540
aaaatatata aattgtgaca ctgaaaattt aaaatgggag gagtggagta aaagtacctt 600
c 601
```

<210> 87

<211> 601

<212> DNA

<213> Homo sapiens

<400> 87

```
agtgcaggga ttacagggtg gagccaccac ccctggccaa tgtttggtat ttatcttttag 60
gtgctctgat gttgggttca tatatattta taaaaacaa tagctacata acttattaag 120
ggatatgcaa tataaaatat ataaattgtg acactgaaaa tttaaaatgg gaggagtggg 180
gtaaaagta cttcatataa cttactatta tatcctctta ttgaattgac ctttttatca 240
ttatatagga actttgtttc tcctttacaa cttctgactt aaagtttgtt ttatatgata 300
yaagtaaagt tactcctgct ctcccttgggt ttctgtttcc atggaatata tttttccatt 360
ccttcacat cagtctgtgt gtatttttac agatgaaatg agtctgtcat gggcagcata 420
tagttggatc tagttttttt aatccactca gacactgtgt tttttgattg gataatttaa 480
tccattcatg ttcaaggtaa ttattgataa gtaaggactt tgtactacca ttttgcttat 540
tgtttcatgg ttctttttata gatcctttat tcttttcttc ctctcttgct gtcttttttt 600
t 601
```

<210> 88

<211> 601

<212> DNA

<213> Homo sapiens

<400> 88

```
ggtttttgggt ttgtgggttac caagagggtta caaaaaacat cttaagagtt ataatagttt 60
attttaactt gataacttaa tttttattgc aaaaaccccc caaaacaaaa aaatctacac 120
ttttacttaa tcccctgaaa ttttgaattt ttgatgtcac agtttacctc ttttcatatt 180
gtgtatccct taaattattg tagctattat tacttttaat agttttctct ttcctactac 240
agatgtaagt gatttgcata ccatcattac agtattattt tgaatttacc tgtgtacttt 300
yttttatcag ccagttttat acttttcagat gtttttgtgt tactcattag catctttttc 360
```

```

tttcagcttg aggagctcct tttacgtttc ttataaaata ggtgcggtca tgattatctc 420
cctcagctat tgtttgcctg ggaaagtatc tctccttcat ttctgaagga cactttgctg 480
ggtacattac ccttggttgg tatttttttc cttgaacgct ttaaataat catccctttc 540
tctcctgacc tgtaggtct ctgctgacca gtcgtgttcc aaccatattg ggactgtctt 600
a 601

```

```

<210> 89-
<211> 601
<212> DNA
<213> Homo sapiens

```

```

<400> 89
attttaacca tccattgttt ctgcttctct agataaccct gactaatata taattggtat 60
gaagtgatat ctcattggctt tgatttatat ttctttcatg gctagtgact tttttgtac 120
ttttgggata ttgttattat tattattatt attactagtg tttatacttc ttcagtaaaa 180
gtgttagaaa caatttttaa aggagaatg tgaccagagt ttctgtagt tatataacca 240
tcattggacct tccctcaagt gctaagccat tagtggtact catgtcactc caaatgtcag 300
sttgttttct tccatttcac tgtctctttg tgtcccaaac ttgaattcat gggaaaaaca 360
tctgaatggt gcttaatatg gtttggtatg ttgtccctc caaatctcat gttgaaatat 420
gacctccagt gttggaagta gggactactt gggtcacgag agtggatcct tcattaatgg 480
cttggttaata agtgaactct attagtctcat gaaagctggt tggtgataag agcctggcat 540
ctcattttctc ttgtccttct ctcaccatct gacacacttg ctcacctttt ttcttcagcc 600
a 601

```

```

<210> 90
<211> 601
<212> DNA
<213> Homo sapiens

```

```

<400> 90
ttccagagt tagaagtaca ctgtcctatc ctttctagga gatcattata acaccaaaag 60
cagacagtat atgaaacagg gaaattagag gccaaagatc ctatgactta tatgtaaaaa 120
tttaaagaaa atattagcaa actgaatcag ccatttttaa aaatatacca caatcaatgc 180
attcataaga gcagcttaac aaaatttgtt agaaggcatt aaagaagact cagtatagaa 240
aagatgtacc ttctctccaa attggtgata gagattcaat gccattaaaa aaaccacct 300
kgtttttttg aggaacttgt caagctgagt ctcaaattta tatcaaagag caaaggccta 360
agaatatcca ggacattcct gaagaactgt aaggagccag gggcctgccc tatcagatac 420
caaggggtgt tattaagcca taaccaagt agtgctgttt ctacagaaac agacaagtta 480
acaagtgaac cataatagag agcccagaaa cagaccatc catatttttg atttgtcacg 540
tgaaagaagt agctttgcaa aactttggga aaaggagagt gtgtgcaata gatgatgctc 600
g 601

```

```

<210> 91
<211> 601
<212> DNA
<213> Homo sapiens

```

```

<400> 91
taaagaagac tcagtataga aaagatgtac cttctctcca aattggtgat agagattcaa 60
tgccattaaa aaaaccacc tggttttttt gaggaacttg tcaagctgag tctcaaat 120
atatcaaaga gcaaaggcct aagaatatcc aggacattcc tgaagaactg taaggagcca 180
ggggcctgcc ctatcagata ccaagggttg ttattaagcc ataaccaagt cagtgtgtt 240
tctacagaaa cagacaagtt aacaagtga acataataga gagcccagaa acagaccat 300
mcatattttg gatgtgtcac gtgaaagaag tagctttgca aaactttggg aaaaggagag 360
tgtgtgcaat agatgatgct cgtgctcatg cagacaaaaa ggaaattggg atacctgct 420
cttaccgtac acaaacacca acctaaacgt gaaagttaaa ctataacagc ttgaggtggt 480
ggggaagaaa tatctttatc tcagtgtagg gaagaattta ttttaaaaag aagacacaaa 540
aggccatata taggaatgaa aagattgaat tcagctgcat taaaaagatt aaattcagct 600
g 601

```

```

<210> 92
<211> 601
<212> DNA

```

<213> Homo sapiens

<400> 92

```
tatctttatc tcagtgtagg gaagaattta ttttaaaaag aagacacaaa aggccataca 60
taggaatgaa aagattgaat tcagctgcat taaaaagatt aaattcagct gcgttaaaat 120
caagagcatc tgtacttgga cagcatagag tggaaagaca aagagaaggt atttgccagc 180
ttataacttg aaggattaga atgaatgata taaagaacta tgtaaataag aaaaagacat 240
acaaccgggt agaaaaacgg gcaaagacat gaacagcata tttcacgtga aggaaacagc 300
rgtagcaaat gaacatggta agagatgctc aacacgttta gtaatttgaa gggaaatgca 360
agttataccc acagcaagac tatcttatct aggaagtttg tcaataccct aaatgttctg 420
tggttttaag ctacagagtt tgtaattcat ttatttattc aataaatact cagtggcagg 480
cactgtttta gaaaccttgg ttataacttt gaatgaaatt aaaaaaaatc cttgccttgt 540
ggaggatgct tatgtgtggg gagttgggtg gtgggggtcaa acaacaatta cattaaaata 600
g 601
```

<210> 93

<211> 601

<212> DNA

<213> Homo sapiens

<400> 93

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acttgaagga ttagaatgaa tgatataaag aactatgtaa ataagaaaaa gacatacaac 60
cggtagaana aacgggcaaa gacatgaaca gcatatttca cgtgaaggaa acagcggtag 120
caaatgaaca tggtaagaga tgctcaacac gtttagtaat ttgaaggaa atgcaagta 180
taccacagc aagactatct tatctaggaa gtttgtaaat accctaaatg ttctgtggtt 240
ttaagctaca gagtttgtaa ttcatttatt tattcaataa atactcagtg gcaggcactg 300
ktttagaaac cttgggtata actttgaatg aaattaaaaa aaatccttgc cttgtggagg 360
atgcttatgt gtggggagtt ggggtgggtg gtcaaacaac aattacatta aaatagaaaa 420
tagtgacata aataaaccta taaatattgc aaccagagt tatattataa atgtaagtag 480
tgactaggac tctcatgcag atatacctct gtgctgggac aaatgaaagt ttaagtgtaa 540
tttcccatat gcaagtcaaa ataaaaagtg acactagaaa acacaataat gaatatctga 600
a 601
```

<210> 94

<211> 601

<212> DNA

<213> Homo sapiens

<400> 94

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ggcatttaag tattctgcca tagggaagtg taaaagttgt aggcttttac tttttatagg 60
tactatattg tccaaataat ctacagcact catgggtgct aaggatctgt gtccttggtt 120
ggtcagatta tgtttatctc tggcataagg cacttaacaa tattcattaa aggttacaga 180
atctttttgc ttcatctgct tagcatttca taccagtttg tttccacca aactttcaaa 240
ttttgattgt ttcattaata ttctgcatac tgatgtaaac caagttctat tattgtgcaa 300
wctgctctg aaacccttag gaactctctg aaggagtttt atttattttt tgtttttgtt 360
tttgttttt ttttgttttt ttgagacgga gtcttgctct gttgccagg ctagagtgtca 420
gtggtgcat ctcggctctc tgcaaacctc gcctccgggg ttcacgccat tctcctgcct 480
cagccaccgg agtagctggg actacaggca cccaccactg cgcctggcta attttttttg 540
tatttttagt agagacgggg tttcacctgt ttagccagga tggctctgat ctcctgacct 600
t 601
```

<210> 95

<211> 601

<212> DNA

<213> Homo sapiens

<220>

<221> variation

<222> (301)...(301)

<223> T, C, or neither (single base deletion) may be present

<400> 95

```

ttgagacgga gtcttgcctc gttgcccagg ctagagtgcg gtggtgcat ctcggctctc 60
tgcaaaactcg gcctccgggg ttcacgccat tctcctgcct cagccaccgg agtagctggg 120
actacaggga cccaccactg cgcttggtta attttttttg tttttttagt agagacgggg 180
tttcaccgtg ttagccagga tggctcgcgt ctcctgacct tgtaatccgc ccgcctcgcc 240
tcccaaagtg ctgggattac aggcgtgagc cactgtgccc ggcctttttt tttttttttt 300
ytttatgggc ttgtcttcta cacttcagat ttgactaaat taaatatgca tttaatgaag 360
tcaggagttc acattgccac tagtaacaat gcctaagctt acataaagca ttataaaatt 420
gttggtgatt agtgccttct cagctatgag tataagataa tattatacta gtagttcagt 480
tgcttagata aattgtacac tatgtgaagt tttatttaca taattcttac ggtatttttt 540
aaggtagttg ataacagttg agactacaat tgtatctcca ttttattgat agtaaaatga 600
a 601

```

```

<210> 96
<211> 601
<212> DNA
<213> Homo sapiens

```

```

<400> 96
gaattgtaaa aatattatta tagaattggt tctctcaaac tatagtaatg tagaataggt 60
tgaaggggtg atgatttgaa acaatacctc tccattagct aaattttata tagaatctat 120
tgcattgttt aaatgataag tcagatttat aaaaatattt ttataaacag taggaaatga 180
gttttaggggt attcacatac agttttaatt tttatttaca tatttaaac atactatggt 240
ataaatatga tgtggatata aatttgagat aaaggaagta ttgtttaaga attgatgaac 300
kaatttctta aaagatgtca tcaccagttg gttttctagc cttatgaaaa atggttgcaa 360
taaaaaagat tgactatgat aaaatgctgc cctttcattt taacctagac caagagaaaa 420
catactgtga atctatgatg aatgaaagaa agttgtaact gttggttttg tatatttgta 480
attactgttt attttcattt cttgtgaact gatactgtac tttgttcatt gtgagtagac 540
aacttataat ctatgtactc aaattgggtt agtataaatt ctagggaatg aagttcatat 600
t 601

```

```

<210> 97
<211> 452
<212> DNA
<213> Homo sapiens

```

```

<400> 97
tgttatactt atggtcaaca ctttttatat ttgtctgtag atttctgtac aaaaagattc 60
tgacactggt ttaagccagc attccttcag aatgtaccca aatctcaaaa tttatttagg 120
ggcaaagcta atgcttttaa gaaaaaggag argggattgg tgtgtgtttt tctttaggaa 180
cagtagtaac ttgactttta gagaacttga ataagcattt attttttcct ttgtcctatt 240
ttattgtgaa gtttatttat taaaataaaa atggatttct ctggaattta gtttctgcaa 300
atttgaggag tttccaaagt caaccttcag gtttgatact tctctagaaa gactcacata 360
actcactgaa agcttattac ccctgggtat gggttattac ggggaaaaga tgcggatgaa 420
aatcagtcga gtaaagaagc acatagggca ga 452

```

```

<210> 98
<211> 601
<212> DNA
<213> Homo sapiens

```

```

<400> 98
ttatatcatt ctgcttttat ttttaggttc acggttcaaa atcagacaaa atgaacatat 60
ttggtggctt tcgacagatg gtaaaagaag gaggtatccg ctgccttttg aggggaaatg 120
gtacaaacgt catcaaaatt gtccttgaga cagctgttaa attctgggca tatgaacagg 180
taattgttat caccctggtg atttattaac aaagaggagt tagtaaacgg attcaataaa 240
tgtaaatgta taatgctttt gggattcttg ttttaataca tgataatctt tcacatatat 300
yccataagga ggatcactta taggagatta gactaaataa aatcagagat ttctcatgac 360
caagttatgg gattcttaat tcatcatatt atttataaag tttttttttt ctaagtagtt 420
cttaaaggaa gggtagaatt ttagtttatt cattctgaat cctgagcaga agcagcacac 480
taacataagt tttatgaaag tgtcacatc taacctctgg aaggaaaact ataagttgaa 540
gtcctttgtg taatttgacg ttgctgtaaa attgagctga gtttgagtg acacctccat 600
g 601

```

<210> 99
 <211> 601
 <212> DNA
 <213> Homo sapiens

<400> 99
 aaattgctcc tgagacagct gttaaattct gggcatatga acaggtaatt gttatcaccc 60
 gtggaattta ttaacaaaga ggagtttagta aacggattca ataaatgtta atgtataatg 120
 cttttgggat tcttggttta atacatgata atctttcaca tataccccat aaggaggatc 180
 acttatagga gattagacta aataaaatca gagatttctc atgaccaagt tatgggattc 240
 ttaattcatc atattattta taaagttttt tttttctaag tagttcttaa aggaagggtta 300
 kaatttttagt ttattcattc tgaatcctga gcagaagcag cacactaaca taagttttat 360
 gaaagtgtca caatctaacc tctggaagga aaactataag ttgaagtcct ttgtgtaatt 420
 tgacgttgct gtaaaattga gctgagtttg gagtgacacc tccatgaagg caggggctg 480
 gcttcttccc catgtactcc agcacctaga cagagcttgg catgtgataa gtttcaagcg 540
 agtggtgaat gagtcaatga atgaacaaat gcatttacct ctgaatcact tctctgtcgg 600
 c 601

<210> 100
 <211> 601
 <212> DNA
 <213> Homo sapiens

<400> 100
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 ataggagatt agactaaata aaatcagaga tttctcatga ccaagttatg ggattcttaa 120
 ttcacatata tatttataaa gttttttttt tctaagtagt tcttaaagga agggtagaat 180
 tttagtttat tcaattctgaa tcttgagcag aagcagcaca ctaacataag ttttatgaaa 240
 gtgtcacaaat ctaacctctg gaagggaaaac tataagttga agtcctttgt gtaatttgac 300
 rttgctgtaa aattgagctg agtttggagt gacacctcca tgaaggcagg ggcgtggctt 360
 ctccccatg tactocagca cctagacaga gcttggcatg tgataagttt caagcgagtg 420
 ttgaatgagt caatgaatga acaaatgcat ttacctctga atcacttctc tgctcgcttt 480
 tgtaacttg gattatttga gctattgctt cagcctaact caatgtaaag gggaaatata 540
 gaggtaagtt ttagagtttg ggttctcttt atgggtcatta gcagaactgt ctagttgagc 600
 a 601

<210> 101
 <211> 601
 <212> DNA
 <213> Homo sapiens

<400> 101
 catatacccc ataaggagga tcacttatag gagattagac taaataaaat cagagatttc 60
 tcatgaccaa gttatgggat tcttaattca tcatattatt tataaagttt tttttttcta 120
 agtagttctt aaaggaaggg tagaatttta gtttattcat tctgaatcct gagcagaagc 180
 agcacactaa cataagtttt atgaaagtgt cacaatctaa cctctggaag gaaaactata 240
 agttgaagtc ctttggtgtaa tttgacgttg ctgtaaaatt gagctgagtt tggagtgaac 300
 sctccatgaa ggcaggggag tggcttcttc cccatgtact ccagcaccta gacagagctt 360
 ggcagtgtgat aagtttcaag cgagtgttga atgagtcaat gaatgaacaa atgcatttac 420
 ctctgaatca cttctctgtc ggcttttgtt aacttggatt atttgagcta ttgcttcagc 480
 ctaactcaat gtaaagggga aatacagagg taagttttag agtttgggtt ctctttatgg 540
 tcattagcag aactgtctag ttgagcagcc acagattatg ttttcatta tttattccat 600
 c 601

<210> 102
 <211> 601
 <212> DNA
 <213> Homo sapiens

<400> 102
 ataaggagga tcacttatag gagattagac taaataaaat cagagatttc tcatgaccaa 60
 gttatgggat tcttaattca tcatattatt tataaagttt tttttttcta agtagttctt 120
 aaaggaaggg tagaatttta gtttattcat tctgaatcct gagcagaagc agcacactaa 180

cataagtttt	atgaaagtgt	cacaatctaa	cctctggaag	gaaaactata	agttgaagtc	240
ctttgtgtaa	tttgacgttg	ctgtaaaatt	gagctgagtt	tggagtgaca	cctccatgaa	300
sgcaggggcg	tggtctcttc	cccattgtact	ccagcaccta	gacagagctt	ggcatgtgat	360
aagtttcaag	cgagtgttga	atgagtcaat	gaatgaacaa	atgcatttac	ctctgaatca	420
cttctctgtc	ggcttttgtt	aacttggatt	atttgagcta	ttgcttcagc	ctaactcaat	480
gtaaagggga	aatacagagg	taagtttttag	agtttgggtt	ctctttatgg	tcattagcag	540
aactgtctag	ttgagcagcc	acagattatg	ttttccatta	tttattccat	cattgtttat	600
c						601

<210> 103
 <211> 601
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> variation
 <222> (301)...(301)
 <223> C may be either present or absent

<400> 103						
gcacctagac	agagcttggc	atgtgataag	tttcaagcga	gtgttgaatg	agtcaatgaa	60
tgaacaaatg	catttacctc	tgaatcactt	ctctgtcggc	ttttgttaac	ttggattatt	120
tgagctattg	cttcagccta	actcaatgta	aaggggaaat	acagaggtaa	gttttagagt	180
ttgggttctc	tttatggcca	ttagcagaac	tgtctagttg	agcagccaca	gattatgttt	240
tccattatatt	attccatcat	tgtttatcaa	ggactgtaag	ggccttgaaa	ttcaactccc	300
ccccccatag	tttttgtatt	attccatgta	gatttttagat	tattctggag	agtgttttgt	360
tcttgagcaa	cagaatactc	ttgagaagat	tacgaagtcc	agtggatcc	ttttctttgc	420
ctaggaaata	gagaagcaaa	aaaaaaaaaa	aaaaaaaaatt	aaagaaaatc	tagtctccag	480
gattttaatt	agaacctatc	cttggggaagg	ctattttcct	tatatgaagg	tttgaagatt	540
caaatacatga	ttattaaggg	ctaattgttg	agataccctt	aggttattct	gaccacatac	600
t						601

<210> 104
 <211> 601
 <212> DNA
 <213> Homo sapiens

<400> 104						
catttacctc	tgaatcactt	ctctgtcggc	ttttgttaac	ttggattatt	tgagctattg	60
cttcagccta	actcaatgta	aaggggaaat	acagaggtaa	gttttagagt	ttgggttctc	120
tttatggcca	ttagcagaac	tgtctagttg	agcagccaca	gattatgttt	tccattatatt	180
attccatcat	tgtttatcaa	ggactgtaag	ggccttgaaa	ttcaactccc	ccccccatag	240
tttttgtatt	attccatgta	gatttttagat	tattctggag	agtgttttgt	tcttgagcaa	300
sagaatactc	ttgagaagat	tacgaagtcc	agtggatcc	ttttctttgc	ctaggaaata	360
gagaagcaaa	aaaaaaaaaa	aaaaaaaaatt	aaagaaaatc	tagtctccag	gattttaatt	420
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cttaggttat	tctgaccaca	tacttggatt	ttatgatagg	aaagccacag	cctaaaaata	300
rtaataactc	aatgcagtta	tttcagtatg	caagaagttt	ggtatttttg	aaaaagtcga	360
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<211> 601

<212> DNA

<213> Homo sapiens

<400> 106

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 ttcattggat gatggaaaac ccattgtttt cccagtggat tgtaaattac ttcggggtaa 540
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<210> 107

<211> 601

<212> DNA

<213> Homo sapiens

<400> 107

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 aattacttct gggtaaatag gctgtatata ttctcaaatt tcccagagta tgtaactagg 480
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<210> 108

<211> 462

<212> DNA

<213> Homo sapiens

<400> 108

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 attggatgat ggaaaaccac ttgttttccc agtggattgt aaattacttc ggggtaaata 180
 ggctgtatat attctcaaat ttcccagagt atgtaactag gtcactttta gattcagata 240
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<210> 109

<211> 414

<212> DNA

<213> Homo sapiens

<400> 109

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tactccctgt ctctgaccc tgctccagca acacagacag acacccttcc tctttctata 360
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<210> 110

<211> 601

<212> DNA

<213> Homo sapiens

<400> 110

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<210> 111

<211> 601

<212> DNA

<213> Homo sapiens

<400> 111

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tattaagtaa atgaaaagac agaactgaca gactggaatt agagctcaag cttgcctcaa 540
tctcaagcca ttaagatgaa ggggagccgg gcgtgggtgg tcacgcctct aatcccagca 600
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<210> 112

<211> 601

<212> DNA

<213> Homo sapiens

<400> 112

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atcaacctga aaaaagagt gagacattgt tgggggagag tgaggtagac tagaggcagg 540
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a 601

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<210> 113

<211> 601

<212> DNA
<213> Homo sapiens

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tcaacagaac tcaactgactg actggatag gaggtgagaa agagaagagt caagaatgat 180
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ggatgggaga aaatccagag agagggatgg cataggagtc agtggaagga aacggtttca 540
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c 601

<210> 114
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<212> DNA
<213> Homo sapiens

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gggaggaatg tctggtattt gggaaatctc tgaaatgata atatacttaa tttttatcat 540
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<211> 601
<212> DNA
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rttaggggat ttaatccatt tacatttaaa gcagttactg ataggggaagg acttactgtt 360
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<210> 117
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<212> DNA
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ccttacttcc tgagatttaa ctgttctctc ttcagcgtt gtctagttag aaggaggcag 480
cagcagcact gtgggggtgt ggaaagtgtt ccagctttgg agtcagacca ttggatctca 540
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<210> 118
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<212> DNA
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caagattggt atggaaggta attaacccag tatttagaac atagtaatta ataaataact 480
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<210> 119
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<212> DNA
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a 601

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<212> DNA
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<210> 121
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<213> Homo sapiens

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gcctgggatt ctacttttag gggtatttgt acttttgagt aatatataaa gtgacaatat 540
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601

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<210> 124

<211> 601

<212> DNA

<213> Homo sapiens

<400> 124

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<210> 125

<211> 601

<212> DNA

<213> Homo sapiens

<400> 125

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